LANGLEY EXPERIENCE WITH ADABAS/NATURAL

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Langley has been using the ADABAS Data Base Management System, together with its companion software products NATURAL and COM-PLETE for a little over 4 years.

I will give a brief overview of those things that are operational using ADABAS and where we are in further application of DBMS technology. This will be followed by brief talks on some specific applications, including some users' views. As I am sure you know, the views of users and providers of ADP services are not always the same regarding how good (or poor) ADP support really is. But I think it will be apparent that we in ADP have provided our customers with some new and powerful capabilities that do assist them in getting their jobs done more effectively.

One of the tools we have provided is that of end-user computing. In addition to the broad variety of pre-formatted screens available for both update (data input) and reports (data query), many of our users write their own query programs using NATURAL. With this capability, our customers can often meet new requirements for data retrieval very rapidly without the need to involve ADP systems analysts and programmers.

The biggest problem that I believe we inflict on our customers is our failure to provide consistent, and consistently good, response time for on-line terminals. This is due, in part, to the success we have achieved. It was not long ago when I could easily keep track of the dozen or so terminals that accessed our system. About a year ago, the number of terminals had grown to about 100. It is now more than 200 with typically two or three dozen on-line at any given time and peaks in the range of 50 to 60.

Not all of these are end-user or ADP customer terminals. Use of interactive terminals by the ADP staff for ongoing maintenance of COBOL programs and the development of new applications using both COBOL and NATURAL also creates heavy workloads for the system.

We have upgraded our CPU from an IBM 4341 Model Group 11 with 4 megabytes of memory to a Model Group 12 with 12 megabytes, and we have a competitive procurement in process to obtain an even faster CPU in order to provide one key improvement element -- making more CPU cycles available per unit of time. We also have an ongoing effort to tune the system to improve response time. This includes specific efforts to ferret out and correct inefficient programs.

Figure 1 summarizes our principal uses of ADABAS in Administrative Support Systems, including both operational systems and those that are currently in development.

Figure 1. LANGLEY USES OF ADABAS/NATURAL

- STRIP AND LOAD
  - EXTRACT DATA FROM COBOL BATCH SYSTEM FILES AND LOAD IN ADABAS FORMAT ONTO DISK
- HYBRID MODE
  - ADD ADABAS FILES TO EXISTING COBOL SYSTEMS
    - AND/OR REPLACE NON-DBMS FILES WITH ADABAS FILES
- END-USER WRITTEN NATURAL PROGRAMS
  - GET NEW REPORTS NOW INSTEAD OF WAITING FOR THE ADP SHOP TO DO SOMETHING
- NEW OR REDESIGNED SYSTEMS (* = OPERATIONAL)
  - * BIDDERS (SOURCE) LIST
  - * PR/PO/CONTRACT TRACKING/INFO
  - CONTRACT CLOSEOUT - DUE 7/84
  - FINANCIAL MANAGEMENT (ACCOUNTING) - DUE FOR FY86
    - INVOICE/PAYMENT SUBSYSTEM - DUE 7/84
  - HUMAN RESOURCES INFORMATION SYSTEM - DUE FOR FY86
    - INTEGRATED PAYROLL/PERSONNEL SYSTEM
  - * TECHNICAL PAPER STATUS TRACKING
  - * BUDGET PLANNING/TRACKING
    - INCLUDES POP DEVELOPMENT SUPPORT
  - * SUPPORT CONTRACT STATUS/STAFFING INFORMATION
  - FABRICATION DIVISION (SHOPS) SUPPORT - DUE IN 85
    - TRACKS INHOUSE AND CONTRACT STATUS, HOURS, DOLLARS
  - * NEMS - AGENCY-WIDE SYSTEM
    - HEADQUARTERS-DEVELOPED USING LANGLEY COMPUTER
  - SUPPLY (INVENTORY) MANAGEMENT - DUE IN FY85
    - KEEP COBOL SYSTEM BUT USE ADABAS FILES